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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,791	10/19/2001	Shinya Kondoh	1165-763-1	6744

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FINNEGAN, HENDERSON, FARABOW, GARRETT &
DUNNER LLP
1300 I STREET, NW
WASHINGTON, DC 20006

EXAMINER

MENGISTU, AMARE

ART UNIT PAPER NUMBER

2673

DATE MAILED: 09/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,791

Applicant(s)

KONDOH, SHINYA

Examiner

Amare Mengistu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2002.
- 2a) ☒ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 11-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 28 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 11,17-18,24 are rejected under 35 U.S.C. 102(e) as being anticipated by Nito et al (5,659,411).

As to claims 11,17-18,24, Nito et al (hereinafter Nito) clearly teaches an antiferroelectric liquid crystal panel including an antiferroelectric liquid crystal between a pair of substrates (see, figs.3, 71-77, col.9, lines 13-24, lines 44-49, col.10, lines 43-51, col.42, lines 39 - col.43, lines 3), which comprises a driving circuit adapted to output a layer structure controlling voltage waveform (see, figs.23A-23C,39,70A-70E) having a frequency of 1 HZ to 100 HZ and a voltage in the range of +10 V to +50 V or -10 V to

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-50 V, for an optional length of time (see, figs. 39, 70A –70E (2 filed of time) , col.21, Table 5).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 12-16,19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nito et al (5,659,411) in view of Tanaka et al (5,459,481)

As to claims 12-16,19-23, Nito discloses an antiferroelectric liquid crystal display having a voltage waveform having a certain frequency and voltage value in a filed by filed bases and but a temperature change that reduces the layer spacing in the antiferroelectric liquid crystal (see,col.11 (tables 1 and 2); col.21 (table 5)). Nito did not teach having a temperature sensor. However, one skill in the art would have recognized that the device of Nito has to have a temperature sensor in order to measure the temperature. Nito has failed to teach the length of the time is equal to one frame excluding a rest period and a control circuit to output a scanning signal. However, the patent of Tanaka et al (hereinafter Tanaka) discloses an antiferroelectric liquid crystal display system in which the optical length time is equal to the period of one frame excluding a reset period (see, fig.30); the pair of substrates are provided with a scanning electrodes and signal

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electrodes, and wherein the panel which outputs the layer structure controlling voltage waveform to the scanning electrodes (see, figs.27-29). Tanaka did not explicitly disclose having a control circuit. It would be obvious that the Tanaka's system includes a control circuit in order to provide the scanning electrodes a scanning signal.

Therefore it would have been obvious to one skilled in the art at the time the invention was made to use the method of outputting a voltage waveform in a frame by frame to the scanning electrode into the device of Nito, because this is an alternative way of deriving an antiferroelectric liquid crystal display and provide a fast response in the switching for a smooth scrolling of a pointing device.

Response to Arguments

5. Applicant's arguments with respect to claims 11-24 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amare Mengistu whose telephone number is (703)305-4880. The examiner can normally be reached on M-F, T-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703)305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-9600.

A handwritten signature in black ink, appearing to read "Amare Mengistu", with a long horizontal flourish extending to the right.

Amare Mengistu
Primary Examiner
Art Unit 2673

Amare Mengistu
September 21, 2002